

REMARKS

This Amendment and Remarks are filed in response to the Final Office Action dated September 11, 2007, wherein claims 31-42 are rejected under 35 USC 112, first and second paragraphs.

Applicants appreciate Examiner's finding that the claims are free of the prior art.

Rejections under 35 USC 112, First Paragraph

Claims 31-42 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Examiner maintains that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

Specifically, Examiner asserts that support is not found in the specification for all of the ranges in claim 31, the percent oxygen range in claim 40 and the temperatures of claim 42. The portions of the specification referred to in the amendment for support do not recite all the ranges, the percent oxygen range and temperatures. The specific page and line where each range and temperature is recited should be pointed out.

Applicants disagree. Claim 31 comprises steps (a)-(f).

Step (a) is directed to preparing a support matrix containing a plurality of pores having a pore size from about 50 to about 500 μm (specification page 29, line 17), wherein said matrix is prepared as a sponge, porous scaffold (page 4, line 15), porous honeycomb or porous honeycomb-like lattice (page 28, line 6).

Step (b) is directed to seeding said support matrix with chondrocytes isolated from a donor (page 22, lines 31 and 32) and suspended in a collagenous solution or collagenous gel (page 24,

line 37 and page 25, lines 1 and 2).

Step (c) is directed to submitting a construct comprising the support matrix seeded with chondrocytes to a constant or cyclic hydrostatic pressure (page 36, lines 35 and 36) for from about one hour to about 30 days (page 37, line 5), followed by a resting period (page 37, lines 7 and 8) comprising applying a static atmospheric pressure (page 67, line 25) for about one day to about 60 days (page 37, line 8), wherein said hydrostatic pressure is from about 0.01 MPa to about 10 MPa (page 37, line 2) above atmospheric pressure (page 36, lines 36 and 37) and is applied at from about 0.01 to about 2.0 Hz (page 37, line 4).

Step (d) is directed to pre-treating a cartilage lesion by depositing a layer of a biologically acceptable bottom sealant (page 52, line 30) into said lesion before implanting said construct therein.

Step (e) is directed to implanting said construct into said pre-treated lesion (page 61, lines 15-17).

Step (f) is directed to depositing a layer of a biologically acceptable top sealant over said construct implanted into said lesion (page 52, lines 29-31).

Claim 40, as amended, is directed to the method wherein said flow rate is about 5 $\mu\text{L}/\text{min}$ to about 50 $\mu\text{L}/\text{min}$ (page 49, line 29) and is performed in the presence of about 1% to about 20% oxygen (page 49, lines 30 and 31).

Claim 42, as amended, is directed to the support matrix made of the thermoreversible gelling hydrogel (page 12, lines 5 and 6).

With amendments to claims 31, 40 and 42 with all ranges questioned by the Examiner being specifically identified, Applicants respectfully submit that the rejections under 35 USC 112, first paragraph are overcome and all pending claims are in

condition for allowance.

It is respectfully requested that the rejections under 35 USC 112, first paragraph are withdrawn and the claims passed to issue.

Rejections under 35 USC 112, Second Paragraph

Claims 31-52 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examiner argues that in step c) of claim 1, using the term "submitting" and "submitted" to require applying the recited conditions to the construct is confusing. The claim should require "applying" the conditions to the construct.

Applicants disagree, however, to advance the examination, Applicants redrafted the claims to recite "applying" step rather than "submitting to". Examiner further submits that line 17 of claim 31 is confusing by requiring a "frequency" for applying pressure when the pressure required previously can be constant. It is uncertain how a constant pressure can have a frequency.

Applicants disagree. However, in the interest of the advancing prosecution, Applicants deleted this term from the claims.

Consequently, rejections under 35 USC 112, second paragraph are moot and should be withdrawn. It is so respectfully requested.

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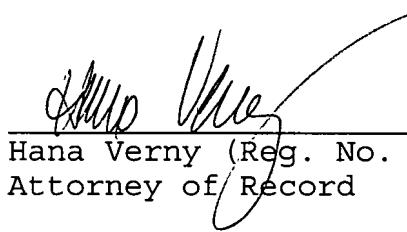
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SUMMARY

In summary, claims 31, 36, 40 and 42 are amended to overcome rejection under 35 USC 112, first paragraph and second paragraph. With this Amendment, all claims that were found to be free of prior art are in condition for allowance. Notice of Allowance is respectfully requested.

Respectfully submitted,

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